

Down With

BY CLAIRE SAFRAN

The body rings no alarms and signals no symptoms. You have no pain, no wound that you can see, no sense of being sick. One day, you are feeling just fine. The next day, in a routine examination, your doctor wraps a black cuff around your arm and pumps it up. Seconds later, the doctor frowns at a column of mercury that has stayed too high in the measuring device. And then you are given the bad news.

What then?

This year, if you or someone you love has high blood pressure, new approaches to treating it will provide more good-health options than ever before. High blood pressure (or hypertension) has been making headlines in recent months, the result of an explosion of research. The wonderful news is that science now knows how to defuse the danger and control the disease. The confusing news is that doctors don't always agree on the best ways to do that. Yet there's one point on which opinion is unanimous: Today we have a repertoire of effective remedies. Depending on how high your pressure is, how you live and what kind of changes you're willing to make in your lifestyle, treatment can be tailored specifically to you.

Because it can lurk in the body without your knowing it's there, high blood pressure has been called "the silent killer"; it's the leading cause of strokes and a major factor in heart attacks and kidney failure.

Between 40 and 60 million Americans have this disease, and the gap in that estimate is part of the perplexity. Blood-pressure experts are still working out an answer to the most basic question: How high is too high?

What the Numbers Mean For the average adult, a healthy blood pressure



It's easier than ever to control these days—in many cases *without* drugs. Read the new medical evidence and learn what the options are.

reading is 120 over 80 or lower. The first, or top, number is the systolic reading, a measure of the pressure in the arteries when they are filled with blood and at their highest tension. The second, or bottom, number is the diastolic, the pressure in the arteries after they have moved the blood along and are relaxed. Both numbers are important, but because they depend so intimately on each other, going up and down in tandem, people often find it simpler to talk about just one, the lower, or diastolic, reading.

If the diastolic goes over 105, and stays there through several readings, there's no argument. That's the beginning of the danger zone, "moderate" hypertension. Once the diastolic rises above 115, the condition is considered "severe." At these levels, almost all doctors will prescribe one or more medications as the surest, swiftest way to bring the pressure down.

A diastolic between 90 and 104 falls into the gray area of "mild" hypertension. Three-fourths of those with high blood pressure are in this category. Experts agree that most of these people require some form of treatment, especial-

ly past a diastolic reading of 100, but drugs themselves may not be necessary.

A diastolic that ranges between 80 and 89 used to be considered normal and safe, and some doctors still think it is. But red flags are now being raised, all part of today's concern with preventing disease rather than waiting until you have to cure it. At this level, specific treatment isn't necessary, but the pressure should be checked once or twice a year to be sure it doesn't edge up into the 90s. Most doctors also think that a diastolic in the 80s is a signal to start doing something to keep it

from rising higher: lose weight, reduce salt intake, cut back on alcohol, start exercising, curb stress.

When Drugs Are the Best Therapy For people in the danger zone, the cases of 105 or more, today's standard medical treatment is remarkably effective. It works for almost every patient who will follow it. Because it begins with the mildest possible drug at the lowest possible dosage and climbs up step by step from there, it's called "stepped care."

The first step is usually a diuretic, a drug such as Diuril, Enduron, Hygroton or a dozen others. These drugs lower the body's volume of fluid by flushing sodium, which raises it, out of the body. That decreases pressure, and for many people that's all the treatment needed.

If step one doesn't bring the pressure down to a safe level, the doctor will add step two. Traditionally, this has been a beta-blocker (Inderal, Corgard and others), something to calm down the sympathetic nervous system and so ease the pressure. In years to come, step two may be one of a new class of drugs called the calcium channel blockers, which doctors are experimenting with now. Too (continued on page 28)

much calcium often causes blood-vessel walls to contract so that pressure is increased; these drugs act as gatekeepers, blocking calcium's entrance into the cells. (The Food and Drug Administration hasn't approved these drugs as blood-pressure treatments yet, but some doctors have begun to prescribe them for hypertension nonetheless.)

For those few patients whose pressure is still too high, step three usually is a vasodilator (Loniten, Apresoline and others), a drug to relax the muscles of the blood-vessel walls. If pressure still isn't controlled, even more powerful drugs are available.

Every drug, of course, has its possible side effects. Diuretics can cause fatigue, muscle weakness, leg cramps, a low potassium level or an elevated uric acid. Beta-blockers may slow the heart and pulse rate, aggravate asthma or bring on fatigue and depression. Vasodilators may step up the heart rate and cause headaches, stuffy noses and fluid retention.

Lists of possible side effects can be frightening, but the cure is not worse than the disease. Not all patients have side effects, and for those who do, doctors often can change or adjust medication to eliminate them. After many

years of caring for patients on these drugs, Dr. Edward Freis of the Veterans' Administration in Washington, D.C., has a reassuring report: "I haven't seen anything yet to alarm me."

The Treatment Options for Mild Cases
Stepped care also plays a role in treating some cases of mild hypertension. Most doctors will start drug treatment if the diastolic is over 100. Many will also prescribe it for those with other risk factors for cardiovascular disease. Studies have found that even mild hypertension is dangerous if you are overweight. Smoking multiplies the threat. Other risk factors include being overstressed or having high cholesterol levels, diabetes or a family history of hypertension.

Even for those who have no other risk factors, a few doctors now prescribe drugs when the diastolic hits the low 90s. But for most people with mild cases of high blood pressure, the newest thinking is that the treatment ought to be mild, too. Dr. Freis was one of the pioneers who proved how effective drugs could be in controlling high blood pressure. Today he says that for the average person the danger from mild hypertension is so low that drugs aren't warranted.

The research on this is contradictory.

Some studies show that treating mild cases reduces the risk of death from hypertension-related disorders like stroke; others show little or no effect until pressure rises to the upper limits of the mild zone. More and more doctors, though, now believe that it's safest and wisest first to try nondrug ways of lowering the pressure, giving them six months or so to work before considering drugs.

Many people can bring their pressure down just by reducing their weight. As you lose weight, you lower the volume of cells that the body needs to pump blood to, and that eases the pressure. Depending on how many extra pounds you're carrying, you need to lose ten to twenty pounds before you see an effect.

Though there's a growing controversy about it (see box), most doctors still believe that salt is always a culprit in this disease. Without drugs for mild cases, along with them for severe cases, many will prescribe a low-salt diet. That means very low, cutting intake by half, getting down to five grams or less a day. The ways to do that include cooking without salt, banning the salt shaker from the dining table and avoiding smoked meats, potato chips and other highly salted foods.

Most doctors also advise cutting down on coffee and tobacco, because both are stimulants. Others suggest that you start eating such potassium-rich foods as bananas, orange juice and prune juice; there is a certain amount of preliminary evidence that raising your potassium level will help push down the blood pressure. Some physicians urge that you exercise, preferably in cardiovascular ways such as jogging, biking, swimming or brisk walking. Exercise can help you work off pounds and daily stress. Beyond that, experts are still arguing about the different studies that show that exercise does—or does not—lower blood pressure.

For a few people in the mild zone, these lifestyle changes may keep drugs away forever. For those who already take drugs, these changes can lower blood pressure enough so that only low dosages are needed. But even without changing their lifestyles, some people with high blood pressure may not be facing years of pill-taking, as most doctors once thought.

Rose Stamler, professor of community health and preventive medicine at Northwestern University, has found that many people can bring their pressure down to normal with drugs, then stop the drugs and, after a year and a half, still be normal without doing anything else to lower the pressure. Twice as many of her patients have been able to stop pill- (continued on page 30)

THE GREAT SALT DEBATE

When the cause of a disease is a mystery, the cure is often a controversy. With high blood pressure, the most heated argument is over sodium, or really salt, because salt is our main source of the substance.

Most doctors advise people with high blood pressure to go on a low-salt diet. The American Medical Association, the American Heart Association, the American College of Physicians and other prestigious groups would say amen to that.

Yet new voices are being heard from. The dissenters are led by Dr. John H. Laragh, director of the hypertension center of the Cornell University Medical Center in New York City and a man who likes to talk about "the great virtues of salt." He believes that much antisalt advice is based on opinion, not proven fact.

As Dr. Laragh explains, "Everybody with high blood pressure doesn't have the same disease." According to his research and that of other medical scientists, about 30 percent of hypertension patients can lower their pressure by reducing the amount of salt they use.

In another 30 percent, according to Dr. Laragh, the major factor is too much renin, a hormone manufactured by the kidneys. "A low-salt diet won't help these people," he says, "and may harm them." Renin gets little attention from the medical community, but Dr. Laragh reports that he's been

able totally or partially to correct high blood pressure in 70 percent of his patients by giving a drug (captopril) that works specifically against renin.

Dr. Laragh believes another 30 percent of hypertension is caused by a mixture of salt and renin, with one or the other out of balance. Some of these patients may be helped by a low-salt diet, he says, but others may not.

The remaining 10 percent have a specific physical cause such as kidney or adrenal disease. For some, a new, nonsurgical procedure, balloon dilation, can open blocked kidney arteries and so cure the disease.

Five years ago, hardly anyone believed in these subtypes of hypertension. Today, most doctors admit they exist but don't always agree with Dr. Laragh's percentages. Nor do they think the different forms are very important. The medical consensus is to treat almost all hypertension with diet and/or diuretics that flush out sodium.

Who's right? You may want to do your own bit of medical research. If your doctor prescribes an antisalt drug or diet, try it for a while. Dr. Laragh suggests a week, but a month may sound more reasonable to your doctor. If your blood pressure comes down, you've proven that salt is guilty in your case. If it doesn't, you may want to ask your doctor about a new test, the renin-sodium profile, that can reveal which type of hypertension is at work in your body.

taking if they also followed the doctor's orders to lose ten pounds, cut salt intake, increase exercise and reduce alcohol to two drinks or less a day.

Beyond Drugs and Diet So we know that pills work for some people and dietary changes work for others. Another approach, based on a new and intriguing idea, is also being proved effective.

If you were to read the previous sentence out loud, your blood pressure would go up. If you were talking to another person, it would go still higher. If the conversation were with your boss, your pressure would go higher than his or hers. If you were speaking to someone of the opposite sex, your pressure would show less change if you're married than if you're single. Dozens of times each day, your blood pressure zigs and zags, adjusting to what you're feeling and doing, even something as simple as speech. These ups and downs take place in everyone, but the swings are wilder and higher in people with high blood pressure. That discovery is the basis for the newest therapy: controlling blood pressure by learning to control everyday stress.

At the Psychophysiological Clinic at the University of Maryland in Baltimore, Professor James Lynch has been

monitoring what happens during ordinary conversation. He's found that the higher the blood pressure is to start with, the more it soars during conversation. With normal people, the increase is 10 to 20 percent, but it can go as high as 50 percent for people with high blood pressure. Within half a minute of starting to speak, the pressure begins its rise. It comes down just as quickly when you stop speaking and start listening to the other person.

"People with high blood pressure tend to be bad communicators," says Professor Lynch. "They speak more rapidly and they breathe more quickly than other people. Their pressure doesn't go down when it's the other person's turn to speak, because they're not really listening. Instead, they're feeling angry or critical at what they're hearing. Or they're planning an answer, getting ready to interrupt."

The solution is not to avoid communication; alienation and loneliness take their own toll. Some doctors are trying instead to help people with hypertension learn to communicate better and so bring pressure down. "Try to be aware of the subjects that are stressful to you," Professor Lynch advises. "Maybe there's something you can change in

those areas of your life. Notice when you're breathing too fast, speaking too fast or not really listening. Then try to slow yourself down."

Talking to other people is only part of "our dialogue with our environment," as it's called by Dr. Aaron H. Katcher, professor of psychiatry at the University of Pennsylvania School of Medicine. We also have a dialogue with the non-human world. We react to stresses like the jangle of telephones or the wailing of police sirens. We respond to pleasures such as trees, running water, a blue sky. As Dr. Katcher points out, "We can improve dialogue and lower blood pressure by choosing what to concentrate on."

Very simply, that's the key to the meditation or relaxation methods that a growing number of doctors are prescribing for people with hypertension. Techniques vary in how they're done, but almost all encourage turning away from what's negative and troubling to contemplate the pleasant.

Something remarkable happens when you do this, according to research done at the Beth Israel Hospital in Boston. Truly relaxing the mind and body mimics the effect that a blood-pressure pill would have. *(continued on page 154)*

HIGH BLOOD PRESSURE

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What's more, the blood pressure stays lower, just as it would with a pill, after you've stopped meditating and have returned to the stresses and demands of daily life.

In his practice, Dr. Katcher prescribes two fifteen-minute periods a day of effective relaxation. Many of his patients try "the relaxation response," developed by Dr. Herbert Benson of the Harvard Medical School. This takes four simple things: a quiet environment; a comfortable position (sitting or lying down, as you prefer); a pushing away of the thoughts that may come into your head, sometimes just by telling them "go away" or "not now"; and the repetition of a word, prayer, sound, or phrase while breathing rhythmically.

Other patients try even simpler techniques. Dr. Katcher has found that genuine relaxation can come from watching the flow of a brook, the sunlight on leaves or a fire in the grate. Some people calm down with a dog or cat (talking to a pet is one form of speech that doesn't raise the pressure). In his research, Dr. Katcher asked people to look at tropical fish swimming in a tank. For normal people, blood pressure ebbed about 10 points; for those with hypertension, it fell as much as 20.

Still, not all doctors are convinced. In some studies, relaxation caused blood pressure to go down very little or not at all. It's odd, but researchers tend to get the results they expect. The same thing is true for patients. They get better results when they believe in the treatment.

Learning to relax or to communicate better can help some people wean themselves from pills. Or it can make drugs or diet work better. If the diastolic is in the 80s, it's a way to practice preventive medicine.

Like any other remedy, relaxation can only work if you stay with it. That's the rub. All along the problem with high blood pressure has been that people drift away from the treatment.

It's not easy to lose weight, for example, or to change the eating habits of a lifetime. People have more success when the rest of the family goes along. We now know that there are many different ways to make food taste good, and that anyone can benefit from a healthful diet. With children who don't want to give up whatever is forbidden to you, you can make a contract that they munch those temptations outside the home, not in front of you.

Nor is it easy to remember to take a pill, especially when you don't feel sick. Some people find the motivation by charting their own progress. Once or twice a week, they take their own blood pressure with a cuff sold at medical supply and drug stores.

In the end, effective blood-pressure therapy is up to each person. The answer may be in the supermarket, in the pharmacy or in your head. It may be in all three places. It's there for the taking, and it's tragic that not everybody reaches for it. Science doesn't yet know how to prevent premature death from some forms of cancer, but it does know how to keep people living long and well with high blood pressure. **ND**